CLAIM AMENDMENTS AND STATUS

1-24. (cancelled).

25. (currently amended) A method of securely transferring data from an encoder to a decoder, said encoder including an encoder timer and said decoder including a decoder timer, said ~~encoder and decoder timers operating independently of one another and being unsynchronized with one another, said~~ method including the steps of:

(a) during a learning process receiving a value of said encoder timer at said decoder ~~timer~~ and determining a mathematical difference value between said value of said encoder timer and a value of said decoder timer;

(b) storing said mathematical difference value as a timer relationship value in said decoder;

(c) at the encoder encrypting a data word to form a transmission word, said data word including information identifying a present value of said encoder timer;

(d) transmitting the transmission word to the decoder;

(e) at the decoder decrypting the transmission word; and

(f) determining a mathematical difference value between said present encoder timer value and a present decoder timer value; and

g) validating the transmission word by comparing the mathematical difference value between said present encoder timer value and said present decoder timer value with said timer relationship value stored in said decoder.

26. (previously presented) A method according to claim 25 wherein the timer relationship value in the decoder is updated upon receipt of a valid transmission word to remove any discrepancies in the relationship between the encoder timer, decoder timer and the timer relationship value, without affecting the decoder timer.

27. (previously presented) A method according to claim 26 wherein the updating of the timer relationship value is only done when necessary.

28. (previously presented) A method according to claim 26 wherein the data word additionally includes at least one of the following: identity information pertaining to the encoder; command information; utility information; cold boot counter information; fixed code information; encoder power supply information and user derived information.

29. (previously presented) A method according to claim 28 wherein the user derived information is variable via one or more inputs to the encoder and is not known to a manufacturer of the encoder.

30. (previously presented) A method according to claim 25 wherein the transmission word includes the encrypted data word and at least one of the following: a cold boot counter value; command information; and identity information pertaining to the encoder.

31. (previously presented) A method according to claim 30 wherein the cold boot counter value, when included in the transmission word, is transmitted in the clear.

32. (previously presented) A method according to claim 25 which includes the step of keeping the encoder and decoder in synchronism using a cold boot counter which is changed each time the encoder is powered up or comes out of reset.

33. (previously presented) A method according to claim 25 which includes the steps of keeping the encoder and decoder in synchronism using a cold boot counter which is changed each time the encoder is powered up or comes out of reset, and including a count value of the cold boot counter in the transmission word.

34. (previously presented) A method according to claim 25 which includes the step of forming a plurality of transmission words, each transmission word being different from the other transmission words and being based at least on respective encoder high speed timer information, in response to a single activation of the encoder.

35. (previously presented) A method according to claim 25 which includes the step of forming only a single transmission word to be transmitted at least once in response to a single activation of the encoder.

36. (previously presented) A method according to claim 25 which includes the steps, during a learn mode, of storing learning information at the decoder which is transferred from the encoder, and deriving a key from the stored information.

37. (previously presented) A method according to claim 36 wherein the learning information is stored in a first-in-first-out structure.

38. (cancelled).

39. (previously presented) A method according to claim 25 wherein multiple encoders are used with a single decoder comprising a single timer and multiple timer relationship values and wherein the various timer relationship values are determined, one for each encoder during its respective learning process.

40. (previously presented) A method according to claim 25 which includes the step of ensuring that the encoder timer at its slowest variance is faster than the decoder timer at its fastest variance.

41. (previously presented) A method according to claim 39 wherein, if the decoder timer lies within a predetermined window when a valid transmission word is received, the decoder timer is re-synchronised with the encoder timer by automatically adjusting the timer

relationship value to remove any discrepancies in the relationship between the timers and the timer relationship value.

42. (previously presented) A method according to claim 41 wherein the re-synchronization is effected by a bi-directional transfer of data between the encoder and decoder.

43. (previously presented) A method according to claim 25 wherein the timer relationship value or a window is adjusted in size to compensate for drift between the encoder timer and the decoder timer, before validation occurs, such adjustment being based at least on the time period elapsed since the last adjustment of the timer relationship value.

44. (previously presented) A method according to claim 25 wherein the timer relationship value or a window is adjusted in size to compensate for drift between the encoder timer and the decoder timer, such adjustment being based at least on information about the drift between the encoder timer and the decoder timer determined by analysing at least two successive valid transmissions received with a period of time elapsed between them and said adjustment being performed before carrying out step (f) on a currently received transmission word.

45. (previously presented) A method according to claim 25 wherein a window size is assigned to the decoder and the encoder timer is operated to ensure that the encoder timer

information does not fall outside the window for a valid transmission of a transmission word in normal operational circumstances.

46. (previously presented) A method according to claim 26 wherein the timer relationship value is allowed a window when validation of the transmission word occurs and the timer relationship value is adjusted based on knowledge of drift between the encoder timer, the decoder timer and the time period elapsed since a previous valid transmission of a transmission word.

47. (previously presented) A method according to claim 46 wherein the window size is dynamically adjusted and such adjustment is based on the time period elapsed since the previous adjustment of the timer relationship value.

48. (previously presented) A method according to claim 47 wherein the window size has a minimum value.

49. (previously presented) A method according to claim 47 wherein the window size has a maximum value.

50. (previously presented) A method according to claim 25 wherein the transmission data word also includes a timer value that changes fast so that each transmission word in a

sequence of transmission words which are transmitted based on a single continuous activation of the encoder, differs from the other transmission words.

51. (previously presented) A method according to claim 25 wherein a higher security re-synchronization of the encoder and decoder timers is achieved at least by using the decoder to generate control signals that are used to, directly or indirectly, control the activation of the encoder.

52. (currently amended) Apparatus for transferring data which includes an encoder and a decoder and wherein the encoder includes a timer and an encryption unit for encrypting data which includes timer information from the encoder timer, thereby to form a transmission word, and the decoder includes a decoder timer ~~which is independent from and unsynchronized with said encoder timer~~, a receiver unit for receiving the encrypted transmission word, a decryption unit for decrypting the received transmission word to extract, at least, the timer information from the encoder, a difference determination unit for determining a mathematical difference value between said encoder timer value and said decoder timer value, and a comparator unit for comparing said mathematical difference value and a timer relationship value stored in said decoder, to determine the validity of the transmission word, the timer relationship value being established during a learning process of the encoder and decoder and being representative of a mathematical difference between a value of said encoder timer that is received by said decoder during said learning process and a value of said decoder timer during said learning process.

53. (previously presented) Apparatus according to claim 52 which includes a unit for adjusting the timer relationship value when a valid transmission word is received to remove at least one of:

(a) any drift that has occurred; and

(b) any other accumulating discrepancy in the relationship between the encoder timer, decoder timer and the timer relationship value.

54. (previously presented) Apparatus according to claim 52 wherein the timer relationship value is adjusted before checking the validity of a received transmission word, such adjustment being based at least on a known drift between the encoder timer and the decoder timer as well as the time elapsed since a previous adjustment of the timer relationship value.

55. (previously presented) Apparatus according to claim 52 wherein the decoder is assigned a window size which determines acceptable drift between the encoder timer and decoder timer for a valid transmission.

56. (previously presented) Apparatus according to claim 55 wherein the window size is adjusted before checking the validity of a received transmission word, said adjustment being based at least on the time period elapsed since the reception of a previously received valid transmission word.

57. (previously presented) Apparatus according to claim 52 wherein a re-synchronisation of the encoder and decoder can be achieved by the decoder providing control signals for the encoder inputs.

58. (previously presented) For use in the method of claim 25, a transmitter which includes an encoder timer and an encryption unit for encrypting data which at least in part is based on timer information from the encoder timer thereby to form the transmission word, and wherein the encoder timer is permitted to run only for a limited period after each activation of the transmitter.

59. (previously presented) For use in the method of claim 25, a transmitter which includes an encoder timer and an encryption unit for encrypting data which at least in part is based on timer information from the encoder timer thereby to form the transmission word and wherein, when the encoder timer runs beyond a predetermined limit, the transmitter will upon a single activation transmit more than one transmission value equivalent to the transmitter being activated twice.

60. (previously presented) For use in the method of claim 25, a decoder which includes a timer, an input to receive the transmission word, a decryption unit to decrypt the transmission word and obtain the transmitted timer information, memory to store the

timer relationship value and a comparison unit to compare the transmitted timer information to time information generated by the decoder timer and to the stored timer relationship value, and means, responsive to the comparison unit, to activate an output if certain criteria are met in the comparison.

61. (previously presented) A method according to claim 25, which includes the step of keeping the encoder and decoder in synchronism using a cold boot counter which is changed each time at least one of the following occurs: the encoder is powered up or comes out of reset, or loses the integrity of its timer/counter unit; and wherein the transmission word includes the encrypted data word and at least a cold boot counter value that may be broken up so that several transmission words are required to transfer the complete cold boot counter value.

62. (previously presented) A method according to claim 61 wherein the cold boot counter value, or part thereof, when included in the transmission word, is transmitted in the clear.

63. (previously presented) A method according to claim 61, further including a count value of the cold boot counter in the transmission word.